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10/723,755	11/26/2003	Keith B. Stobie	13768.459	9956

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WORKMAN NYDEGGER/MICROSOFT
1000 EAGLE GATE TOWER
60 EAST SOUTH TEMPLE
SALT LAKE CITY, UT 84111

EXAMINER

WEI, ZHENG

ART UNIT	PAPER NUMBER
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2192

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/723,755

Applicant(s)

STOBIE ET AL.

Examiner

Zheng Wei

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/26/2003.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the application filed on 11/26/2003.
2. Claims 1-40 are pending and have been examined.

Oath/Declaration

3. The Office acknowledges receipt of a properly signed oath/declaration filed on November 26, 2003.

Priority

4. The priority date considered for this application is November 26, 2003.

Information Disclosure Statement

5. The information disclosure statements filed 11/26/2003 has been placed in the application file and the information referred to therein has been considered.

Drawings

6. The drawings filed on November 26, 2003 are accepted by the Examiner.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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8. Claims 21-40 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 21: Claim 21 defines a "computer program product" comprising one or more computer readable media carrying computer executable instructions.

However, the "computer program product" must reside on a computer readable medium and this computer readable medium cannot be "connection", which the applicant has indicated as being included in the scope of "a computer readable medium". (Page 17, paragraph [0043], "When information is transferred or provided over a network or another communications connection (either hardwired, wireless, or a combination of hardwired or wireless) to a computer the computer properly views the connection as a computer-readable medium. Thus, any such connection is properly termed a computer-readable medium.").

Because "connection" can be interpreted as a signal encoded with functional descriptive material, which does not fall within any of the categories of patentable subject matter set forth in 35 U.S.C § 101.

For further information, see Interim Guidelines for Examination of Patent

Application for Patent Subject Matter Eligibility (signed 26Oct2005) –OG Cite:

1300 OG 142. Annex IV(c)

<<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>>

Claims 22 – 24: Claims 22 - 24 are dependent claims of claim 21. These claims all fail to remedy the 35 U.S.C 101 nonstatutory problem of claim 21.

Claims 25: Claim 25 defines a "computer program product" comprising one or more computer readable media carrying computer executable instructions.

However, the "computer program product" must reside on a computer readable medium and this computer readable medium cannot be "connection", which the applicant has indicated as being included in the scope of "a computer readable medium". (Page 17, paragraph [0043], "When information is transferred or provided over a network or another communications connection (either hardwired, wireless, or a combination of hardwired or wireless) to a computer the computer properly views the connection as a computer-readable medium. Thus, any such connection is properly termed a computer-readable medium.").

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For further information, see Interim Guidelines for Examination of Patent

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<<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>>

Claims 26 – 40: Claims 26 - 40 are dependent claims of claim 25. These claims all fail to remedy the 35 USC 101 nonstatutory problem of claim 25.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1, 13, 14, 16 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnson (Johnson et al., US 2004/0073890 A1).

Claim 1:

Johnson discloses, in a computer system that includes software under test, a method of verifying the software with one or more tunable test cases that are capable of being set to any of a plurality of verification levels, the method comprising acts of:

- reading in one or more test cases that include a plurality of software testing instructions organized as a plurality of verification levels within a verification hierarchy, wherein at least two verification levels within the verification hierarchy define different amounts of checking to perform for determining if the software functions as intended when executed (see for example, Figure 2; from step 32, "Test Engineering" to step 34, "Project Engineering", "Test Cases" and related text);

- reading in verification settings that define one or more desired verification levels within the verification hierarchy (see for example, Figure 2, step about passing “Configuration Information” to step 34, “Project Engineering” and related text);
- identifying a portion of the plurality of software testing instructions within the one or more test cases that corresponds to the one or more desired verification levels (see for example, Figure 2, detailed steps 1-4 of step 34, “Project Engineering” and related text) and
- running the portion of the one or more test cases that corresponds to the one or more desired verification levels (see for example, Figure 2, step 36 “Project Testing” and related detailed steps and text).

Claim 13:

Johnson further discloses the method of claim 1, wherein at least a portion of at least one of the plurality of software instructions determines that software information is available and uses the information for troubleshooting the software if it is determined that the software does not function as intended when executed (see for example, Figure 2, step 3-5 of “Project Testing 36”, “Record Results”, “Report Issues”, “Provide Test Case Feedback when necessary” and related text).

Claim 14:

Johnson also discloses the method of claim 13, wherein the software information available is debug information (see for example, Figure 2, step 3-5 of "Project Testing 36", "Provide Test Case Feedback when necessary" and related text, also see, p.3, paragraph [0023], "As tests are run and results recorded, report are issued to test engineering for tracking test progress and adapting tests with feedback").

Claim 16:

Johnson further discloses the method of claim 1, wherein the portion of the one or more test cases that corresponds to the one or more desired verification levels produces one or more test outputs for verifying the software (see for example, Figure 2, step 3-5 of "Project Testing 36", "Record Results", "Report Issues", "Provide Test Case Feedback when necessary" and related text).

Claim 17:

Johnson discloses, in a computer system that includes software under test, a method of verifying the software with one or more tunable test cases that are capable of being set to any of a plurality of verification levels, the method comprising steps for:

- loading one or more test cases that include a plurality of software testing instructions organized as a plurality of verification levels within a verification hierarchy, wherein at least two verification levels within the verification

hierarchy define different amounts of testing to perform for determining if the software functions as intended when executed (see for example, Figure 2, from step 32, "Test Engineering" to step 34, "Project Engineering", "Test Cases" and related text);

- receiving verification setting instructions for one or more desired verification levels from within the verification hierarchy for use in testing the software (see for example, Figure 2, step about passing "Configuration Information" to step 34, "Project Engineering" and related text); and
- testing the software at the one or more desired verification levels by running the one or more test cases that include the plurality of software testing instructions that correspond to the one or more desired verification levels (see for example, Figure 2, step 36 "Project Testing" and related detailed steps and text).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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12. Claims 2-12, 18-38 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (Johnson et al., US 2004/0073890 A1) in view of Ruffolo (Ruffolo et al., US 2003/0196190 A1).

Claim 2:

Johnson discloses the method of claim 1, wherein a first test case from the one or more test cases is part of a first test group, the first test group including one or more software testing instructions organized as one or more verification levels within the verification hierarchy, and wherein the verification settings (configurations) that define one or more desired verification levels (Test Iteration) for the first test group (Test Plan) (see for example, Figure 1B, element 30, "Configurations", element 28, "Test Plan", "Test Case", element 26 "Test Iteration" and related text).

But does not disclose the verification settings defining a desired verification level for the one or more test cases. However, Ruffolo in the same analogous art of test case generation discloses building different verification level (test items) of test case based on verification settings (distribution list) (see for example, Fig.4, step S406-S412 and relate text). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to define the verification settings for the test case in the configuration file to further customize the verification level of each test case. One would have been motivated to do so to customize each test case for the project as suggested by Johnson (see for

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example, Figure 2, step 2a of "Project Engineering 34" – "Customize Test Cases for the project").

Claim 3:

Johnson and Ruffolo disclose the method of claim 2, Johnson further discloses the method comprising acts of:

- identifying a portion of the one or more software testing instructions within the first test group that corresponds to the one or more desired verification levels (see for example, p.1, paragraph [0010], "A test iteration engine aligns a test case or set of test cases with a configuration to present a matrix view of one or more test cells that guide testing of an information handling system having the identified configuration, also see Figure 1B, element 26, "Test Iteration", element 28, "Test Plan", element 30, "Configurations" and related text)
- running a portion of the first test group that corresponds to the one or more desired verification levels (see for example, Figure 2, step 36 "Project Testing" and related detailed steps and text).

Claim 4:

Johnson and Ruffolo disclose the method of claim 3, Johnson also discloses, wherein the verification settings (configurations) define a single desired verification level for the first test case and the first test group (see for example, Figure 1B, "Configuration B" of element 30 "Configurations", using single

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configuration to cover all test cases in "Test Plan 28", also see related text descriptions).

Claims 5 and 7:

Johnson and Ruffolo disclose the method of claim 3, but do not explicitly disclose that the verification settings defined verification level for the first/second test cases are different from a desired verification level for the first test group. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to understand that the verification levels of the first/second test cases and test group are different, because each test groups comprises one or more test cases, each test cases can be customized to different verification level to test different degree or portion of software component based on different configurations as discussed above. Therefore, verification levels of the test case and test group can be different.

Claim 6:

Johnson and Ruffolo disclose the method of claim 4, but do not explicitly disclose that the verification settings defined verification level for the second test case are different from a desired verification level for the first test group. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to understand that the verification levels of the

first/second test cases and test group are different, because each test groups comprises one or more test cases, each test cases can be customized to different verification level to test different degree or portion of software component based on different configurations as discussed above. Therefore, verification levels of the test case and test group can be different.

Claim 8:

Johnson and Ruffolo disclose the method of claim 7, but do not explicitly disclose that the verification settings defined verification level for the first/second test cases are different.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to understand that the verification levels of the first/second test cases could be different. Because each test cases can be customized to different verification level to test different degree or portion of software component based on different configurations as discussed above. Therefore, verification levels of the test cases can be different.

Claim 9:

Johnson and Ruffolo disclose the method of claim 3, Johnson further discloses wherein a second test case from the one or more test cases is part of the first test group, and wherein third and fourth test cases from the one or more test cases are part of a second test group, the second test group including one or

more software testing instructions organized as one or more verification levels within the verification hierarchy, and wherein the verification settings that define the one or more desired verification levels for the one or more test cases also define one or more desired verification levels for the second test group, the method further comprising acts of:

- identifying a portion of the one or more software testing instructions within the second test group that corresponds to the one or more desired verification levels (see for example, p.1, paragraph [0010], "A test iteration engine aligns a test case or set of test cases with a configuration to present a matrix view of one or more test cells that guide testing of an information handling system having the identified configuration, also see Figure 1B, element 26, "Test Iteration", element 28, "Test Plan", element 30, "Configurations" and related text); and
- running a portion of the second test group that corresponds to the one or more desired verification levels (see for example, Figure 2, step 36 "Project Testing" and related detailed steps and text).

Claim 10:

Johnson and Ruffolo disclose the method of claim 9, but do not explicitly disclose that the verification settings defined verification level for the

first/second/third/fourth test cases, the first test group and second test group are different.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to understand that the verification levels of the test cases and test groups can be set to different verification levels, because each test groups comprises one or more test cases, each test cases can be customized to different verification level to test different degree or portion of software component based on different configurations as discussed above.

Therefore, verification levels of the test cases and test groups can be different.

Claim 11:

Johnson and Ruffolo disclose the method of claim 10, Johnson further discloses wherein the first and second test groups are part of a third test group, the third test group including one or more software testing instructions organized as one or more verification levels within the verification hierarchy, and wherein the verification settings that define the one or more desired verification levels for the one or more test cases also define one or more desired verification levels for the third test group, the method further comprising acts of:

- identifying a portion of the one or more software testing instructions within the second test group that corresponds to the one or more desired verification levels (see for example, p.1, paragraph [0010], "A test iteration engine aligns a test case or set of test cases with a configuration to present a matrix view of

one or more test cells that guide testing of an information handling system having the identified configuration, also see Figure 1B, element 26, "Test Iteration", element 28, "Test Plan", element 30, "Configurations" and related text); and

- running a portion of the second test group that corresponds to the one or more desired verification levels (see for example, Figure 2, step 36 "Project Testing" and related detailed steps and text).

Claim 12:

Johnson and Ruffolo disclose the method of claim 9, but do not explicitly disclose that the verification settings define a desired verification level for the third test group different from each of the first test case, the second test case, the third test case, the fourth test case, the first test group and the second test group.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to understand that the verification levels of the test cases and test groups can be set to different verification levels, because each test groups comprises one or more test cases, each test cases can be customized to different verification level to test different degree or portion of software component based on different configurations as discussed above.

Therefore, verification levels of the test cases and test groups can be different.

Claim 18:

Johnson discloses the method of claim 17, wherein a first test case from the one or more test cases is part of a first or a second test group, the first test group including one or more software testing instructions organized as one or more verification levels within the verification hierarchy, further comprising acts of:

- identifying a portion of the one or more software testing instructions within the first test group that corresponds to the one or more desired verification levels (see for example, p.1, paragraph [0010], "A test iteration engine aligns a test case or set of test cases with a configuration to present a matrix view of one or more test cells that guide testing of an information handling system having the identified configuration, also see Figure 1B, element 26, "Test Iteration", element 28, "Test Plan", element 30, "Configurations" and related text); and
- running a portion of the first test group that corresponds to the one or more desired verification levels (see for example, Figure 2, step 36 "Project Testing" and related detailed steps and text)

But does not disclose the verification settings defining a desired verification level for the one or more test cases. However, Ruffolo in the same analogous art of test case generation discloses building different verification level (test items) of test case based on verification settings (distribution list) (see for example, Fig.4, step S406-S412 and relate text). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to define the verification settings for the test case in the configuration file to further customize the verification level of each test case. One would have been motivated to do so

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to customize each test case for the project as suggested by Johnson (see for example, Figure 2, step 2a of "Project Engineering 34" – "Customize Test Cases for the project").

Johnson and Ruffolo also do not explicitly disclose the verification level for the first test case is different from a desired verification level for the first test group. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to understand that the verification levels of the first test case and first test group could be different. Because each test groups can be customized to different verification level to test different degree or portion of software component based on different configurations as discussed above. Therefore, verification levels of the test cases and test group can be different.

Claim 19:

Johnson and Ruffolo disclose the method of claim 18, wherein a second test case from the one or more test cases is part of the first test group, but do not explicitly disclose the verification level for the second test case is different from a desired verification level for the first test group. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to understand that the verification levels of the first test case and first test group could be different. Because each test groups can be customized to different verification level to test different degree or portion of software component based

on different configurations as discussed above. Therefore, verification levels of the test cases and test group can be different.

Claim 20:

Johnson and Ruffolo disclose the method of claim 19, Johnson further discloses wherein verification setting instructions for the desired verification levels define a single verification level for the first and second test cases (see for example, Figure 1B, "Configuration B" of element 30 "Configurations", using single configuration to cover all test cases in "Test Plan 28", also see related text descriptions).

Claims 21-24:

Claims 21-24 are a computer program product version of claimed method, wherein all claimed limitations have been address and/or set forth above in claims 17-20. Therefore, as the references teach all the limitation of claims 17-20, they also teach the limitations of claims 21-24 respectively. Thus, they also would have been obvious.

Claims 25-38 and 40:

Claims 25- 38 and 40 are a computer program product version of claimed method in claims 1-14 and 16 above, wherein all claimed limitations have been address and/or set forth above. Therefore, as the references teach all the

limitation of claims 1-14 and 16, they also teach the limitations of claims 25-38 and 40 respectively. Thus, they also would have been obvious.

13. Claims 15 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson (Johnson et al., US 2004/0073890 A1) in view of the admitted prior art (APA) of paragraph [0007] of Applicant's background.

Claim 15:

Johnson discloses the method of claim 1, but does not disclose wherein the portion of the one or more test cases that corresponds to the one or more desired verification levels does not produce any testing output.

However, APA discloses the stress test that does not provide any testing output if system doesn't crash when the insert record object is run (see for example, paragraph [0007]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to run Johnson's test case for simple stress tests without output and only decide the test result by watching the system's status. One would have been motivated to do so to run a number of test cases within a short time period as suggest by APA (see for example, paragraph [0007], "...the stress test is useful in running a number of test cases within a short time period.")

Claim 39:

Claim 39 is a computer program product version of claimed method in claims 15 above, wherein all claimed limitations have been address and set forth above. Therefore, as the references teach all the limitation of claim 15, they also teach the limitations of claim 39. Thus, it also would have been obvious.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zheng Wei whose telephone number is (571) 270-1059. The examiner can normally be reached on Monday-Thursday 8:00-15:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571- 272-1000.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ZW



TUAN DAM
SUPERVISORY PATENT EXAMINER